

cedures for the medical office, hypodermic injection technique, technique of simple laboratory operations, routine urinalysis, hematology, medical office bacteriology, electrocardiography, medical office x-ray procedure, emergencies in the medical office.

It may be worth noting that, although this book has just been published in the year 1971, some of the details listed already require up-dating. For example: In chapter 18, page 277, on payroll deductions, the authors state that if the income tax withheld from employee wages plus the combined employee and employer F.I.C.A. taxes for a given month amount to more than \$100, the total must be deposited by the employer on or before the fifteenth day of the following month in a Federal Reserve Bank. On the other hand, specific instructions in the current form 941, the amount is \$200.00.

On the whole, this book can be recommended as a succinct volume to be either a text for the student or a reference for the medical assistant. Incidentally, it can be of service to the physician to keep in his office for his own information as well as that of his assistant.

EDGAR WAYBURN, M.D.

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**DIAGNOSTIC APPROACHES TO PRESENTING SYNDROMES**—Jeremiah A. Barondess, M.D., Editor, Clinical Professor of Medicine, Cornell University Medical College; Attending Physician, The New York Hospital, New York. The Williams & Wilkins Company, 428 E. Preston, Baltimore, Md. (21202), 1971. 547 pages, \$21.50.

In an age in which technological advances may bewilder the physician caring for sick patients, this bedside approach to diagnosis is genuinely refreshing. Thirteen problem areas of internal medicine have been selected from the various specialty areas; for example: mitral and aortic regurgitation, fever of unknown origin, weakness, unresolving pneumonia, demineralization of bone. The clinical presentation and pathologic physiology are reviewed in detail, and a differential diagnosis is thoroughly analyzed with a special eye to clinical points suggesting specific diagnoses. Often a logical stepwise approach to diagnosis is outlined and the merit of common diagnostic techniques is weighed. The contributing authors approach their topics with varying format—some are more analytical, others more anecdotal; but all chapters seem authoritative and the bibliographies are generally extensive and current. The lead chapter on mitral regurgitation is particularly outstanding.

The House Officer, generalist, or internist who enjoys approaching diagnosis from presenting syndromes rather than from specific disease entities will find this book helpful and often truly stimulating.

W. MORRIS H. NOBLE, M.D.

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**TEXTBOOK OF MEDICAL PHYSIOLOGY—Fourth Edition**—Arthur C. Guyton, M.D., Professor and Chairman of the Department of Physiology and Biophysics, University of Mississippi School of Medicine. W. B. Saunders Company, West Washington Square, Philadelphia, Pa. (19105), 1971. 1032 pages, \$18.50.

This book exemplifies some of the dilemmas inherent in present-day textbook writing. First, should multiple authors write on their specialties in a diversity of writing styles and without much correlation between chapters, or should one good teacher present a consistent viewpoint and writing style throughout the book? Here a single author does not prevent duplication of ideas and phrases in different parts of the book, where, for example, the principles of diffusion are presented twice, where the same general ideas of lateral inhibition are re-presented (each time in-

adequately) in the contexts of the visual, auditory, and somatosensory systems, and even where the ideas that 120 meters is longer than a football field (when mentioning axon conduction velocity) appears more than once. The style of the book is consistent, with an effort to always give examples of generalizations and to offer many figures. Unfortunately, the examples are often more difficult to understand than are the principles (as in the case of illustrating the idea of mathematic integration by the example of integrating the first derivative of a function to obtain that function), while the figures quite frequently raise more questions than they answer (by having unexplained symbols, fictitious results, confusing arrows, and other simplifications, apparently for didactic purposes)—all of which frustrate the careful reader. The whole approach seems to indicate a codification in written form of material found successful in small-group blackboard teaching; if so, the material suffers in the transfer.

A second dilemma relates to whether the material should be presented "in depth" or in a more superficial manner. This book strongly opts for the second, which in turn gives it a dogmatic mien. Although there are references at the end of each chapter, none are cited in the text, and the only names of famous investigators that creep in do so as eponyms. Small attempts are made to communicate the present status of knowledge, but these are too often inaccurate, as when excitation of postsynaptic neurons is "believed" to be due to an excitatory transmitter, soon followed by the dogmatic statement that "synaptic vesicles contain the excitatory transmitter." The overall approach leads to statements which are not harmful in context, for a superficial reader, but which will make it difficult for a motivated student to go to any other source without becoming confused: (1) The diagrams for servo-control loops are unorthodox without special benefit and with room for considerable confusion in terminology. (2) A fundamental equation of axonal conduction (the Goldman) is called by the name of a similar, but crucially different equation (the Nernst). (3) The statements of the Bell-Magendie law and of the Frank-Starling law both confuse the consequences of a law with the principle itself. (4) The infamous "all-or-none" law of axonal conduction is completely misrepresented. (5) It is implied that a monophasic action potential cannot be obtained by means of extracellular electrodes (most medical students successfully record such potentials in laboratory exercises). (6) The mechanism of action of excitatory transmitter on the postsynaptic membrane is ascribed to permeability changes at one place, to  $\text{Na}^+$  alone, at another, to both  $\text{Na}^+$  and  $\text{K}^+$ , and at a third, to "essentially all ions."

The final and major dilemma of modern "large" textbooks of physiology is: who will read it? With the rapid decline in basic science teaching in medical education, the role of the thorough, all-inclusive, authoritative reference book is called into question. Possibly graduate students and a few medical students may want to delve into the subject more deeply than the average present-day professional student, but this book, as already indicated, is not suited for such students (and probably was not so intended). On the other hand this 1000-page textbook is probably too long (despite its efforts to be "simple") for present day cut-down quick-survey medical-physiology courses. This problem is not the fault of the author, but of our "curricular convulsions" (that is non-purposive, massive, uncoordinated movements of subject matter). How authors will find their new readerships is not clear, but it is of interest that the same author offers this material in two other versions, one 30 percent and the other 50 percent shorter.

DON L. JEWETT, M.D.